

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)

21 APR 2005

Applicant's or agent's file reference A3-158PCT	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US 03/31881	International filing date (day/month/year) 08.10.2003	Priority date (day/month/year) 25.10.2002
International Patent Classification (IPC) or both national classification and IPC H01R31/06		
Applicant MOLEX INCORPORATED et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 6 sheets, including this cover sheet.
 - This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 1 sheets.

3. This report contains indications relating to the following items:
 - I Basis of the opinion
 - II Priority
 - III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV Lack of unity of invention
 - V Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI Certain documents cited
 - VII Certain defects in the international application
 - VIII Certain observations on the international application

Date of submission of the demand 24.05.2004	Date of completion of this report 25.01.2005
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Chelbosu, L Telephone No. +49 89 2399-6974



**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

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I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-7 as originally filed

Claims, Numbers

1, 2 filed with telefax on 15.01.2005

Drawings, Sheets

1/12-12/12 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- the language of publication of the international application (under Rule 48.3(b)).
- the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form.
- The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description, pages:
- the claims, Nos.:
- the drawings, sheets:

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5. This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1,2
	No: Claims	
Inventive step (IS)	Yes: Claims	1,2
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1,2
	No: Claims	

2. Citations and explanations

see separate sheet

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Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. STATE OF THE ART

Reference is made to the following documents:

- D1: US-A-5 752 857 (A.J.KNIGHTS) 19 May 1998
- D2: EP-A-0 939 582 (JAPAN SOLDERLESS TERMINAL) 1 September 1999
- D3: EP-A-1 052 590 (JST) 15 November 2000.

Document D1, which is considered to represent the most relevant state of the art, discloses an adapter for a memory card connector from which the subject-matter of claim 1 differs, *inter alia*, in that :

F1: - the reinforcing plate includes a lock member engageable with the miniature memory card inserted into the inner cavity.

2. OBJECTIVE TECHNICAL PROBLEM

The problem to be solved by the present invention may therefore be regarded as to simplify the construction, namely to reduce the number of the components and thereby to obtain low production costs.

3. SOLUTION

The technical problem posed is solved by the features of claim 1, particularly F1.

4. NOVELTY, INVENTIVE STEP AND INDUSTRIAL APPLICABILITY

The feature F1 is neither disclosed in, nor rendered obvious by, either one of the prior art documents cited by the applicant or listed in The International Search Report. In each of D1-D3 the lock member/mechanism is a independent component of the adapter.

Neither combination of the features disclosed in D1-D3 would stimulate the person skilled in the art to form a lock member in one piece with a reinforcing component

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(generally, a component having another appliance than locking of a memory card) of the adapter and thus, the person skilled in the art would not come to the subject-matter of claim 1.

Therefore, the independent claim 1 meets the requirements of Article 33(2)-(3) PCT with regard to novelty, inventive step and industrial applicability in view of the available prior art.

Claim 2 depends on claim 1 and therefore fulfils the requirements of Article 33(2)-(3) PCT with regard to novelty, inventive step and industrial applicability in view of the available prior art.

5. REMARKS

- 5.1 The independent claim is not in the two-part form in accordance with Rule 6.3 (b) PCT, with those features known in combination from D1 being placed in the preamble and with the remaining features being included in the characterising part.
- 5.2 The applicant should regard that:
- In the claim 1 it is disclosed the feature of "a lock member" which is followed by the reference sign (68). In the description of present application it is disclosed the feature of "a lock **member**" in the summary of the invention, on page 3, lines 11-13, without being followed by any reference sign;
 - The reference sign (68) is presented in the description of present application, in the detailed description of the preferred embodiment, on page 7, lines 5-22, as belonging to the feature of "a lock portion";
 - Furthermore, also in the description of present application, in the detailed description of the preferred embodiment, on page 7, lines 5-22, it is disclosed the feature of "a lock arm", which is followed by the reference sign (66).
- Therefore, it is necessary to clear (Art. 6 PCT) which relationship exists between "a lock **member**", "a lock **portion**", "a lock **arm**" and the reference signs (66,68):
- "a lock **member**" represents the whole assembly including both of "a lock **portion**" and "a lock **arm**" and thus, should be followed by the reference signs (66, 68);
 - "a lock **member**" represents only "a lock **portion**" and that should be

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specified in claim 1 and the reference sign (68) will be kept;
- "a lock member" represents only "a lock arm" and that should be specified in
claim 1 and the reference sign (66) should be adopted.

- 5.3 The document reflecting the prior art (D1) are not identified in the description [Rule 5.1(a)(ii) PCT].
- 5.4 The description is not brought in conformity with the claims as required by Rule 5.1(a)(iii) PCT.

Amended 14 January 2005
A3-158 PCT

CLAIMS

1. An adapter (14) for a memory card connector to enable a miniature memory card (18) to be inserted into a larger, standard memory card connector (16), comprising:
a two-part housing means (26,28) of a size and shape to simulate a standard memory card and including an inner cavity (20) for receiving a miniature memory card (18), the housing means including a base housing (26) defining a substantial portion of said inner cavity and an inner housing (28) separate from and independent of the base housing; and

a plurality of terminals (48) stamped and formed of conductive sheet metal material, each terminal including a first contact portion (48a) at one end thereof for engaging an appropriate contact (24) on the standard memory card connector (16), a second contact portion (48c) at an opposite end thereof for engaging an appropriate contact (54) of the miniature memory card (18) and a mounting section (48d) between said opposite ends, the mounting sections of the terminals being press-fit into terminal-receiving passages (44) in the inner housing (28), the adapter characterized by

a reinforcing plate (56) supporting the base housing (26), wherein said inner housing (28) comprises an elongated bar, and said reinforcing plate (56) comprises a narrow band (58) running generally parallel to the inner housing, and

wherein said reinforcing plate (56) includes a lock member (68) engageable with the miniature memory card (18) inserted into the inner cavity (20).

2. The adapter of claim 1 wherein said inner housing (28) is integrally welded to the base housing (26).